

*Application of
Christopher Warren*

1 I claim

1. A multi-layer flooring tile, for laying on a substrate, comprising:

a porous base layer, having communicating interstitial spaces for laterally
dissipating moisture, said base layer contacting said substrate;

5 a flexible and resilient membrane layer overlayed on and bonded to said base layer;
a hard and durable top layer overlayed on and bonded to said membrane layer.

2. The multi-layer flooring tile of Claim 1, wherein the said base layer is formed of
9 generally rounded particles in contacting relationship and fused at contact points for
forming a solid lattice structure.

3. The multi-layer flooring tile of Claim 2 wherein the said particles consist of silica sand
13 coated with heat activated phenolic resin.

4. The multi-layer flooring tile of Claim 1, wherein the said membrane layer consists of a
aliphatic polymer mixed with rubber particles or flexible additives.

17 5. The multi-layer flooring tile of Claim 1, wherein the said top layer includes colored
quartz particles for providing a hard, durable, chemical resistant surface.

21 6. A process for making a multi-layer flooring tile comprising the steps of:

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- 1 placing a layer of resin coated silica sand particles in a flat bottomed mold;
 heating said silica sand particles;
 allowing said silica sand particles to cool;
 applying a membrane layer, consisting of catalyzed aliphatic polymer and rubber
5 particles, in liquid form, on said layer of silica sand particles;
 applying a top layer of catalyzed aliphatic polymer, silica sand and silica flour, in
 liquid form, on the said membrane layer;
 broadcasting the said top layer with quartz particles;
9 allowing the said membrane layer and the said top layer to cure.

7. The process of Claim 6, wherein the said heating step consists of raising the temperature
of the said silica sand particles to approximately 425 degrees fahrenheit and maintaining the
13 said temperature for at least approximately 45 seconds.

8. The process of Claim 6 including the additional step, of applying a clear aliphatic
polymer coating on said top layer, following said step of allowing the said membrane layer
17 and the said top layer to cure,

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